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The role of health care organizations in patient engagement: Mechanisms to support a strong relationship between patients and clinicians

Cynthia J. Sieck • Jennifer L. Hefner • Daniel M. Walker • Natasha Kurien • Lauren Phelps • Ann Scheck McAlearney

Background: Patient engagement (PE) is critical to improving patient experience and outcomes, as well as clinician work life and lowering health care costs, yet health care organizations (HCOs) have limited guidance about how to support PE. The engagement capacity framework considers the context of engagement and examines precursors to engagement, including patients' self-efficacy, resources, willingness, and capabilities.

Purpose: The aim of this study was to explore clinician and patient perspectives related to mechanisms through with the HCOs can facilitate PE through the lens of the engagement capacity framework.

Methodology/Approach: We administered an online open-ended survey to clinicians and patient advisors across the United States, including questions focused on the influences of, barriers to, and skills and tools required for PE. A common theme emerged focusing on the role of HCOs in facilitating engagement. Our analysis examined all responses tagged with the "health care system" code.

Results: Over 750 clinicians and patient advisors responded to our survey. Respondents identified offering advice and support for patients to manage their care (self-efficacy), providing tools to facilitate communication (resources), working to encourage connection with patients (willingness), and training for HCO employees in cultural competency and communication skills (capabilities) as important functions of HCOs related to engagement.

Conclusion: HCOs play an important role in supporting a strong partnership between the patient and clinicians. Our study identifies important mechanisms through which HCOs can fulfill this role.

Practice Implications: HCO leadership and administration can help establish the culture of care provided. Policies and initiatives that provide appropriate communication tools and promote culturally competent care can increase engagement.

Key words: health care organization, patient engagement, self-efficacy

Patient engagement (PE) is an integral component of achieving the quadruple aim of improved experience of care for patients, better population health, less stressful work life for clinicians, and lower per capita health care costs (Bodenheimer & Sinsky, 2014; Chase, 2012). Some have even proposed adding PE as a fifth aim given its ability to influence the work of others (Epperson et al., 2016). Efforts to increase PE in health care have been embraced by policy makers and health system leaders as important drivers of improved quality and reduced costs (James, 2013; Kimerling et al., 2020). Operationalizing the role that health care organizations (HCOs) can play in supporting engagement requires knowledge of best practices and an implementation framework for health care leaders.

The concept of PE has been defined and measured in a variety of ways including as a broad concept "that combines patient activation with interventions designed to increase activation and promote positive patient behavior" (James, 2013). For example, patient activation, a concept closely related to PE and defined by Hibbard et al. as "understanding one's role in the care process and having the knowledge, skills and confidence to manage one's health and health care" (Nutting et al., 2009), is measured by the 13-item Patient Activation Measure (Hibbard et al., 2004). Other approaches to defining PE include measuring the psychological concepts that comprise engagement or including lists of behaviors thought to be associated with engagement (Barello et al., 2015; Lorig et al., 2013). In addition, the engagement behavior framework offers a list

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of behaviors that the "individual and/or caregivers must perform in order to maximally benefit from health care" (Center for Advancing Health, 2010). These established approaches, however, focus mainly on the patient's role in engaging and neglect the ways in which the health care interaction as the context of engagement can influence patient actions.

Noting the lack of a PE framework that addresses the health care context, a recent qualitative study examined PE between patients and clinicians and proposed domains of engagement behavior—self-management, health information use, collaborative communication, and health care navigation—along with behaviors in each domain (Kimerling et al., 2020). Drawn from interviews with patients, the authors described how the propensity to engage is reflected in a patient's perceived level of self-efficacy for the task. They noted that collaboration between patients and clinicians is critical to a patient's engagement, but as the focus of the analysis was on engagement behaviors by patients, Kimerling et al. (2020) did not consider the role that HCOs may play in facilitating engagement. Our study addresses this gap by characterizing patient- and clinician-identified strategies related to engagement and placing these in the context of actions HCOs can take to facilitate increased engagement.

Theory

The engagement capacity framework (ECF), developed in recent work by our team, is a novel approach to understanding PE (Sieck et al., 2019a). The ECF proposes that engagement behaviors are an endpoint and that the focus should be on precursors to engagement; a distinction that places greater importance on identifying factors that influence a patient's capacity for engagement, which in turn allows us to better focus on intervention efforts. Figure 1 presents this model of the capacity for engagement that draws upon the common elements of PE definitions and places engagement in the context of the HCO. Specifically, the ECF, grounded in Bandura's social cognitive theory (SCT) (Bandura, 1986), extends the concept of engagement beyond the interaction between a single patient and clinician or HCO to consider the way that the environment influences one's capacity to engage.

SCT describes the interactions between a person, their environment, and their behaviors as dimensions that constantly influence each other and are influenced by each other. This multidimensional context can help focus engagement efforts and enable more efficient allocation of limited resources by allowing clinicians to target PE interventions based on the individual patient's identified engagement needs. Guided by SCT, the capacity to engage described within the ECF is composed of four main dimensions, self-efficacy, resources, willingness, and capabilities, which are specific to the patient (see Figure 1).

Four Dimensions of Engagement

Using the SCT framework, elements of the environment related to the role of HCOs can play a critical role in influencing engagement behavior. Below, we examine the four dimensions of the ECF.

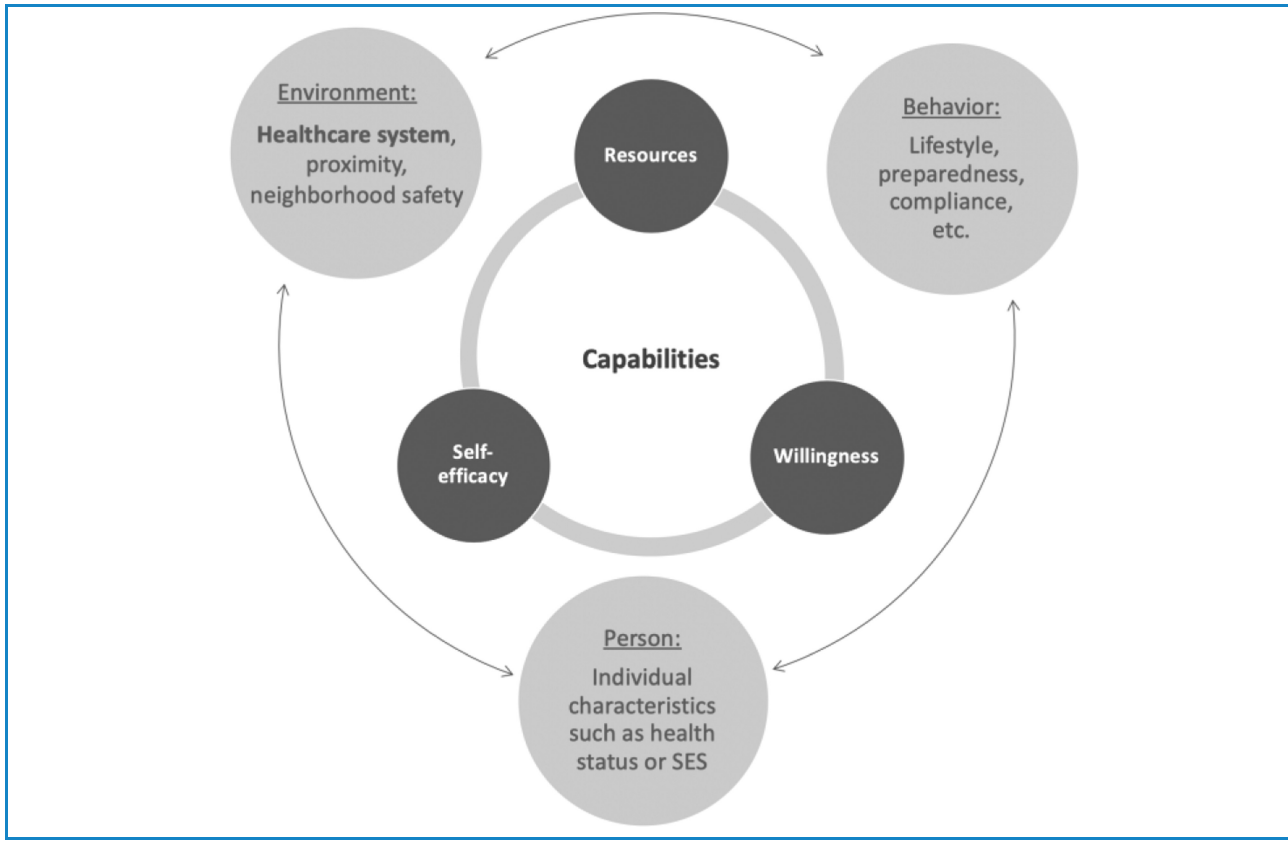

Figure 1. Engagement capacity framework and health care organizations, adapted from Sieck et al. (2019a).

Self-efficacy. Self-efficacy is "an individual's belief in their own ability to perform a behavior," including the behavior of participating in one's health care (Sieck et al., 2019b). Bandura (1986) suggests that self-efficacy is the most important element of behavior change because it can influence an individual's chosen goals related to a behavior. Research supports the importance of self-efficacy in changing health behaviors (Nutting et al., 2009). Within the ECF, a patient's engagement capacity is influenced by their perceived self-efficacy about their ability to take an active part in their care. For example, a patient who feels they would not be able to ask sufficiently intelligent questions (low self-efficacy) may not go into a health care encounter planning to seek information or participate in health care decisions, resulting in decreased engagement.

Resources. Resources are factors external to the patient but that enable patients' full participation in their care (Sieck et al., 2019b). These can include financial resources such as household income and health insurance, access-related resources such as Internet access to utilize online patient materials, or availability of convenient appointment times. Person-related resources include a clinician with whom the patient feels she can communicate or contact outside the appointment time. A variety of types of resources have been shown to facilitate engagement in health care, including income (Griffith et al., 2017; Khullar & Chokshi, 2018), access to health care (Lazar & Davenport, 2018; Yue et al., 2018), and others (Estacio et al., 2017; Lazar & Davenport, 2018).

Willingness. Willingness is another dimension of ECF that impacts a patient's capacity to participate in their health care (Bell, 2017; Duthie, 2017; Sieck et al., 2019b). We define willingness as "the quality or state of being prepared to take an action." In addition to self-efficacy, a patient must be willing and motivated to take the necessary actions. For example, many HCOs now offer a patient portal through which patients can engage by exchanging messages with clinicians. However, patients may vary in their willingness to share information electronically because of privacy concerns and may be unlikely to engage in this manner (Agaku et al., 2014; DePuccio et al., 2020; Fooks, 2015).

Capabilities. The ECF defines capabilities as an individual's knowledge and skills that enable them to perform a behavior (Sieck et al., 2019b). As with resources, capability covers a range of topics. For example, knowledge of where to find health information and the ability to perform health-related tasks such as self-monitoring, understanding of medication labels, processing numerical information (i.e., numeracy), and knowing how to use Health Information Technology (HIT) are all examples of capabilities that we propose are related to PE (Manias et al., 2015; Santana & Feeny, 2014).

In combination, a comprehensive consideration of these four dimensions of capacity for engagement extends the construct of patient activation and moves beyond current descriptions of PE behaviors in the literature. When applied, the ECF could enable the identification of individual strengths and weaknesses, which could then inform interventions to improve measured aspects of PE. In order to move the literature in this direction, we conducted the analyses reported in this article to examine the role of HCOs in PE as part of a larger study designed to develop a measurement tool for patients' capacity for engagement based on the ECF. Our primary research question for this article was to explore what patients and clinicians perceive to be mechanisms through which HCOs can facilitate engagement. This study was approved by our institutional review board.

Method

We administered an online survey to clinicians and patient advisors across the United States asking questions that were intended to learn how respondents conceptualized engagement. Patient advisors are current or former patients themselves who also work with HCOs to provide a patient voice in the context of developing organizational initiatives and promoting patient-centered care in HCOs (Institute for Patient- and Family-Centered Care, n.d.). In collaboration with our study's Project Advisory Committee, composed of patient advisors, clinicians, and others with expertise in PE, we created 14 open-ended questions for this survey. Questions asked respondents to identify factors that influence engagement, barriers to engagement, and skills and tools required for engagement and to provide a description of an engaged patient. We administered this online survey to patient advisors and clinicians at a large, Midwestern academic medical center as well as through national organizations such as America's Essential Hospitals and the Institute for Patient- and Family-Centered Care. Members of those organizations were able to forward the survey invitation to their colleagues and partners. Participants were compensated with $20 gift cards for completing the survey.

Following the methods of thematic analysis from Constas (1992), an initial codebook was developed separately for the focus groups and interviews by inductively identifying broad themes linked to focus group/interview guide questions (Constas, 1992; Miles & Huberman, 1994). Researchers [CS, JH, NK, LP, DW, SM] coded the first 40 responses and discussed differences to reach consensus. As needed, we modified the codebook to incorporate emergent codes. Each researcher then coded all the responses for a subset of survey questions. The research team met frequently to discuss new codes or coding concerns and updated the codebook accordingly. We used ATLAS.ti v8 to facilitate the coding process (Scientific Software Development, 2013).

The role of HCOs in PE was not explicitly addressed in the survey and represents an emergent finding. To explore perspectives about HCOs' role in PE, we included "health care organization" as an a priori code in the initial codebook and additionally analyzed all responses to the survey questions related to factors that influence engagement, barriers to engagement, patient needs related to engagement, and other topics respondents might perceive as related to engagement. We read through all quotes that were tagged with these codes and identified instances in which respondents mentioned how HCOs could address the ECF's four dimensions to enhance PE. We then mapped respondents' specific comments

to the four elements of the ECF: resources, willingness, capabilities, and self-efficacy.

Results

We received 727 clinician responses and 61 patient advisor responses, with the characteristics of survey respondents presented in Table 1. Clinician respondents were primarily physicians from a variety of specialties who reported practicing between 1 and 10 years on average. Forty-four percent of clinicians reported a role other than physician, including 18.6% nurses and 13.0% physician assistants. The geographic distribution for both respondent categories—clinicians and patient advisor—was across six or more states.

Across the total sample of 788 respondents, there were many descriptions of ways HCOs could support PE. This emergent finding is notable because, as discussed above, the survey did not ask this question directly. Upon further analysis of this general theme around importance of HCOs supporting PE, we found that respondents' suggestions could indeed be mapped to the four dimensions of the ECF. Both this general theme and specific suggestions related to the ECF findings are discussed in greater detail below.

First, we identified a general theme describing the role of HCOs in facilitating and supporting patients' engagement in their care. For example, one clinician told us:

> *Patient engagement isn't just about the patient. It is our responsibility as health care professionals to encourage that engagement. We need to be open and accepting. We need to know how to engage to the patient effectively. We need to know the language, how to communicate, the culture, the diversity surrounding it all.... We should prepare the patient for the new medication, the new therapy, give them the sources and show them how to use them if necessary. Patient engagement depends on our effective engagement and encouragement in their care.... We need to be engaged as well.*

TABLE 1: Respondent demographics

		Clinicians (*N* = 727) % (*n*)	Patients (*N* = 61) % (*n*)	
Role	Physician	50.2 (365)	NA	
	Nurse	20.8 (151)		
	Physician assistant	9.1 (65)		
	Therapist	6.2 (45)		
	Pharmacist	3.3 (24)		
	Other	10.6 (77)		
Specialty	Primary care	21.2 (154)	NA	
	Pediatrics	6.1 (44)		
	Psychiatry	5.8 (42)		
	Infectious disease	5.6 (41)		
	Other	61.3 (446)		
Duration in that role	Less than 1 year	7.7 (56)	Less than 1 year	14.8 (9)
	1–5 years	40.4 (294)	1–5 years	60.6 (37)
	5–10 years	33.7 (245)	5–10 years	19.7 (12)
	10+ years	17.6 (128)	10+ years	4.9 (3)
	Other	0.6 (4)	Other	—
Region	Northeast	24.9 (181)	Northeast	1.6 (1)
	Southeast	18.0 (131)	Southeast	3.3 (2)
	Midwest	31.1 (226)	Midwest	93.4 (57)
	Southwest	5.2 (38)	Southwest	0 (0)
	West	20.5 (149)	East	0 (0)
	Other	0.3 (2)	Other	1.6 (1)

Respondents noted that this is the job not just of a patient's specific clinician but of the HCO as a whole:

> *I think that there are factors involving the healthcare system, as well as the patient themselves. Factors in the healthcare system include actually having avenues for the patient to engage in such as communication platforms, self-scheduling, lectures open to the community.*

When speaking of a patient's role in engagement one clinician said,

> *It is equally, if not more, important for providers to foster an environment that allows for patient engagement in the first place. This is not limited to the physician directly responsible for that patient's care either. Every team member needs to be cognizant of the things that they can do in order to engage patients more fully.*

Next, many respondents described specific ways HCOs could support PE. We mapped these examples onto the dimensions of the ECF: self-efficacy, resources, willingness, and capabilities. Below, we present examples of the role of HCOs, and in Table 2, we present additional supportive quotations aligned with the ECF elements.

Self-Efficacy

Many respondent comments related to how HCOs could foster a sense of self-efficacy in patients and facilitate engagement. One clinician told us the role of the health care team is to support patients by

> *[R]eceiving information that gives them [patients] an understanding of their health status and the options available to them. Being advised what they can do to help themselves through this, and that the decisions are theirs to make, although medical professionals can provide recommendations; in other words, being empowered to be an active participant in the treatment plan.*

Resources

Respondents described resources that HCOs could provide to facilitate engagement, including technology such as patient portals, educational materials, and appropriate staffing so that appointments are accessible. For example, a patient advisor described significant benefits of the patient portal, "[Patient portal] has made a huge difference. I see my test results and can ask questions. If something is bothering me, I can ask a question and get a quick response." Others focused on resources that improve access, with one respondent reporting that PE was facilitated by "Effective and easy communication with providers and staff. Enough staff in the office (to field calls while the providers are caring for others), access to a lab near the physician office to get them done quickly, transportation."

Willingness

Ways in which HCOs could enhance patients' willingness to participate in their health care centered around the patient–clinician relationship and the ability of all care team members to support engagement. For example, a patient advisor told us, "Personally, I am most engaged with my doctors and health care decisions when I feel like I'm able to make the type of connection with my doctor that allows me to be honest with them and fully open to their feedback." Related to the importance of considering the entire health care team, one clinician told us that key to a patient's willingness to engage is the "emotional engagement of the staff and clinicians in the hospitals and doctors' offices."

Capabilities

Respondents described ways in which HCOs could support each patient's capabilities related to engagement, including training all providers and staff members in cultural competency and communication skills and supporting shared decision-making. One respondent described the importance of culturally appropriate materials in this way:

> *Respect is at the heart of cultural competence-patients who feel their healthcare providers respect their beliefs, customs, values, language, and traditions are more likely to communicate freely and honestly, which can, in turn, reduce disparities in healthcare and improve patient outcomes.*

Discussion

Increasing PE is viewed as critical to improving outcomes and lowering health care costs. However, the patient is only half of the engagement equation. We must also identify the specific ways in which HCOs can support a patient's engagement efforts (Agha et al., 2018; Kimerling et al., 2020). The ECF, which highlights the four dimensions of self-efficacy, resources, willingness, and capability, can help HCOs and individual providers consider ways to leverage limited resources by identifying the dimension(s) of engagement that create the greatest barriers to patients participating in their health care. In this way, organizations can target their engagement efforts and identify population subgroups with specific needs or barriers to address. This approach may shift HCOs to consider not only whether an intervention improved engagement but also which components of engagement improved, creating the ability to design more targeted interventions.

To provide a health care management perspective for the ECF, Figure 2 presents a summary of example actions HCOs can take within the dimensions of the ECF that is drawn from our findings.

An important function of an HCO in facilitating engagement centers around fostering self-efficacy by making sure the patient has all the information and support necessary to feel confident in taking part in their care. For example, respondents in our survey discussed the HCO's role in fostering a patient's confidence in managing their health conditions (self-efficacy) by taking adequate time during an encounter. Patient

TABLE 2: Respondents' comments about a health care organization's role in addressing the elements of the engagement capacity framework (ECF)

ECF dimension	Example quotes
Self-efficacy	"Patients feel more confident taking part in their health care when they know more about it. To help them accomplish this, health care providers need to be able to connect patients with materials that they can access and understand easily. How this is done will vary among patients, with some wanting information electronically, and others preferring print materials."
	"Inform, engage and empower you (patient) to feel comfortable and even confident in taking a greater role in your own health care."
	"Taking the time—no matter how busy we are—to really listen to and talk with patients. Let them know how valuable their thoughts, feelings, wants and needs are and that it is an expectation that they are part of the healthcare team."
Resources	"Different people have different learning styles so sometimes need to try different media—handouts, website (even facebook groups), apps, videos, etc."
	"[Patient Portal] is an excellent tool that allows patients access to their own personal medical records, and that can help them 'own' a deeper understanding, as well as provide a basis for new questions."
	"Technology: Patient engagement should always consider and move toward technology that works for various age groups."
	"Things that engage in all 5 senses. Pamphlets to read. A podcast to listen to (just in time). Paraphernalia to practice with (how to self-inject insulin). Access to the latest research information about care through social media. But we need to make sure that this information is accurate. Opportunity to ask clinicians in real time when the question arises (e-mail posting, face-to-face communication). YouTube collection repertoire about skills that they need to review (FS check, PD catheter care, CVC line care and management, etc.)."
Willingness	"Having providers that understand their patients and adjust the environment and discussion to maximize the probability of patient engagement to the level needed."
	"The environment and culture of the health care facility definitely influences patient engagement. Specifically, are the providers open to hearing from their patients? Do the patients feel like their voice is heard? Do the providers present the patient–provider relationship like a reciprocal partnership where patients can weigh in? I believe if patients are invited (formally or informally) to be involved or give feedback, they will be more likely to engage."
	"The role of the front desk staff is key. Front desk staff are the first interaction for patients and can help foster an environment that leads to patient engagement. Smiling, being greeted, and keeping info confidential gets patients off on the right foot."
	"Patients need to be comfortable about where they are. If their visit starts bad, it is already off to a bad start. If it takes them 30 minutes to park and have to walk 5–10 minutes to whatever department they're supposed to be seen in, they usually are not in a good mood to begin the visit. If they are upset before they're even seen, it's very difficult to get them to come around if they [are] already upset and about to go through an uncomfortable 3-hour procedure."
Capabilities	"Education that is culturally competent, that fits with the patient's education."
	"The practitioner's interpersonal communication skills, health care professional's cultural competence, knowledge (knowing how to practice in a culturally informed and competent manner)."
	"Patient education and medical literacy. Physician time spent with patient. Relationship and trust building between physician and patients."
	"Ask yourself, 'What do we know about this individual's background that will help us communicate?' The current population is very diverse, and it's wrong to assume they all come to you with a similar level of education, experiences, and the ability to understand."

self-efficacy can also be bolstered by offering self-management programs or using HIT tools that allow patients to monitor and track their own health behaviors and outcomes. Studies have documented the benefits of focusing on this dimension of self-efficacy. For example, interventions focused on self-efficacy implemented in HCOs have shown improvement in cancer symptom management (White et al., 2017).

In the resources dimension, HCOs can assist by providing electronic tools such as patient portals to help patients manage their care, as well as the training necessary to use these resources.

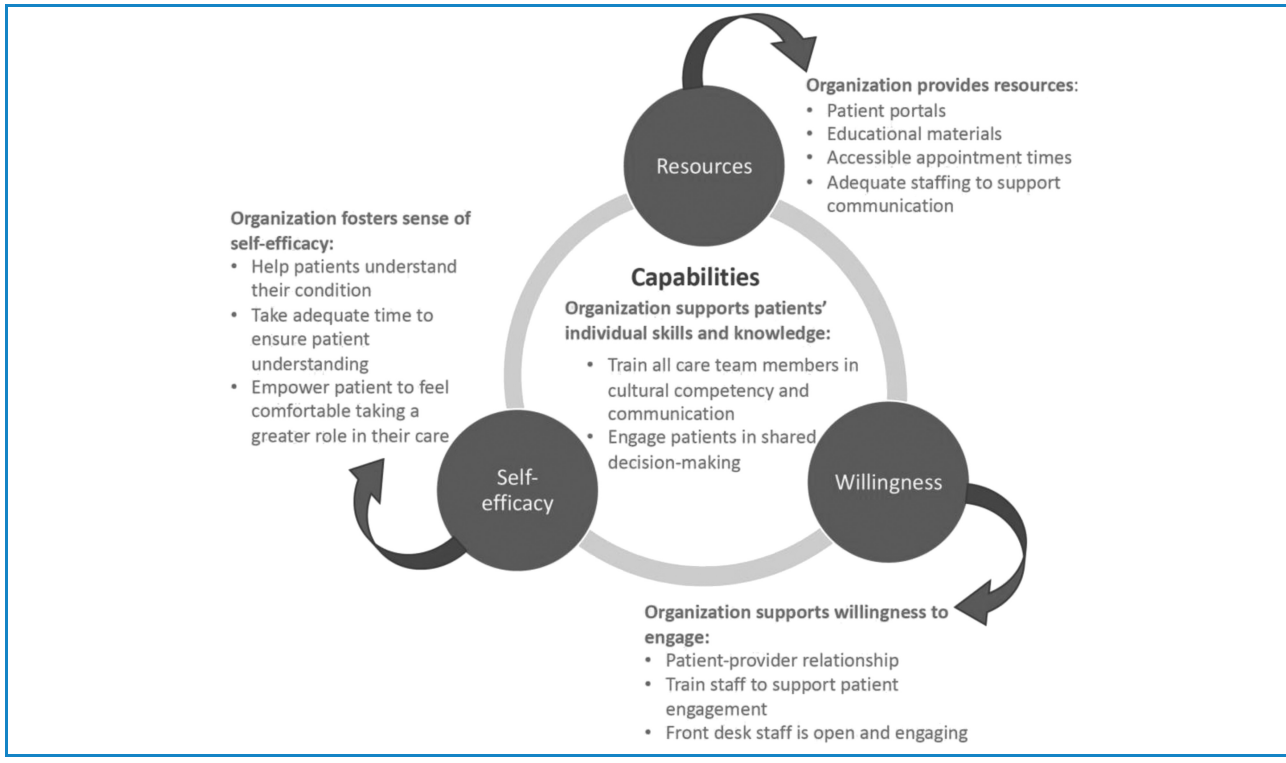

Figure 2. The role of a health care organization in facilitating patient engagement.

Technology navigators deployed in the inpatient setting, for example, can help patients understand why and how to engage with patient portals (McAlearney et al., 2016). HCOs can also provide assistance to reduce potential barriers such as transportation to medical appointments (Starbird et al., 2019). Finally, HCOs can address the resources dimension by ensuring that accessible appointment hours are available. These are examples of important ways the HCO can attempt to ensure a patient has sufficient resources to engage.

HCOs can consider patients' willingness to engage by assessing patients' preferences related to engagement, for example, their wishes to participate in shared decision-making or to follow the recommendations of their provider, and by providing multiple mechanisms for this type of engagement. In addition, HCOs can support patients who are willing, and move those who are not along the path to willingness, by paying attention to the way in which providers and the entire health care team interact with patients. Respondents to our survey specifically described attention to the entire clinical encounter process—from the openness of front office staff to interactions with providers.

Finally, improving capability for engagement relates to ensuring that tools are offered to patients who meet their abilities. Health literacy, for example, is one component of capacity for engagement. Dunn and Conard (2018) describe four health literacy abilities that influence a patient's capacity for engagement through shared decision-making: literacy, numeracy, navigation, and communication. Health literacy interventions can include ensuring medication instructions are clear and providing accessible health information, as Dunn and Conard describe, as well as offering HIT tools, training to use them, and even devices with which to use them. In addition, HCOs can provide educational materials in a range of reading levels and appropriate languages to meet patients' needs (Sklar, 2018).

The ECF model applied in this study extends the SCT to the context of PE. This theoretical framing provides a useful lens to advance conceptualization of PE and aids in examination of patient characteristics that can be addressed by HCOs. Moreover, our findings provide practical insight into the theoretical constructs and highlight several specific mechanisms through which HCOs can increase a patient's capacity to engage in their care. Aligned with current efforts to incorporate assessments of social determinants of health into the electronic health record, we posit that assessments of patient capacity for engagement can help HCOs identify a more comprehensive strategy for PE (Freij et al., 2019). The goal of increased engagement has been prevalent in HCOs for a while. The need to understand and support a patient's capacity to engage has become a pressing concern because of the current COVID-19 pandemic. In response to COVID-19, much of health care delivery transitioned to telehealth. However, in this shift, the need to understand and support a patient's capacity to engage is even more critical. When much of health care shifted to virtual delivery, HCOs recognized the need to support patients' virtual engagement by providing additional instructions and technical support to both patients and clinicians (Majid & Wasim, 2020; Meyer, 2020; Srinivasan et al., 2020). In the process, however, HCOs across the country quickly discovered that many of their patients had limited capacity to engage in this way because of a lack of devices or skills, or language barriers, and needed additional support. Developing a tool to assess capacity for engagement could help

HCOs identify and address these deficits and thus remains an important future area of inquiry.

Limitations

Our findings should be interpreted with key limitations in mind. First, our survey was distributed via organizational listservs, which therefore prohibit our knowledge of the overall response rate, as well as how well survey respondents represent the overall population. However, our total sample size and diversity of health care roles represented, as well as our achievement of saturation around the concepts reached in the analysis, give us confidence in the validity of these findings. Second, our survey asked about engaged patients and did not specifically include items about what HCOs can do to facilitate engagement. Although this is an important emergent finding, participant responses may have been different if they had been asked explicitly about actions by HCOs. Finally, our study sought to elaborate a theoretical framework rather than test the ECF. Further research is needed to confirm the relationship between the ECF dimensions and PE, including comparisons of the relative importance of each of the four dimensions.

Conclusions

HCO leadership and administration influence clinician practices and the environment created to deliver high-quality care. Leadership also plays a vital role in changing the culture of the health care environment. The HCO's role in PE can thus be guided by those in leadership positions. For example, helping foster a culture of open communication between providers and patients could improve engagement. Another important role for HCO leaders and administrators identified in our study is to ensure availability of resources that influence a patient's capacity for engagement.

Examining the role that HCOs can play in supporting PE can help establish a stronger partnership between a patient, an HCO, and the clinicians within it. To fully realize these benefits, however, HCOs need to systematically assess each patient's capacity for engagement and then act to increase that capacity. This study has presented examples of ways in which HCOs can facilitate engagement via the four dimensions of the ECF. To fully incorporate these mechanisms, however, more work is needed to assess an HCO's capacity to support engagement, identify its own strengths and weaknesses, and develop and tailor more effective interventions.

Practice Implications

This work highlights the important role that HCOs play in helping patients to participate in their care and to increase their engagement as patients. We identify actions, including creating an environment in which patients feel supported and well informed and providing helpful tools and resources such as accessible educational materials and patient portals, that align to both patient- and clinician-identified strategies and the ECF. Furthermore, although many HCOs currently take many of these actions, it is important to view them holistically and understand the ways in which they interrelate. For example, a patient portal can be useful in the resources domain, but some patients may require additional training to improve their capabilities or further explanation to increase their willingness to use the portal. Thus, consideration of how this interrelatedness may lead to more impactful engagement opportunities.

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